

EBB AND FLOW ON THE BLUE DANUBE

While climbing up the control tower of the lock I had the feeling I was going to watch a few planes taking off or landing. The construction was high, elastic, made of concrete and glass, with an aerodynamic shape and a prismatic geometry. The cabin windows were enormous, panoramic, bent inwardly, giving the impression of water flowing right under one's feet. The wind swung the building as if it had been a steel sheep designed to face any storm and earthquake. It was not a sunny day, such as those we all dream to bathe in during our vacations. On the contrary, clouds were hustling by, with lurid peepings of the sun arising from the waters. Actually it was both raining and snowing and the wind was blowing in gusts. The water of the Danube-Black Sea Canal was raising waves into the horizon, flowing into a darkened sea.

this week's reportage

It was early in the morning and the control crew were all present in the tower to supervise the passage of the first sea-going ship of the day, through the lock No. 1, therefore coming from the sea into the river. On the afternoon of the previous day I had witnessed the routine check of all the installations, opening up the lock No. 2, the operation of filling up and clearing out water tanks, worthy of a seismograph. Nothing out of order, in other words, the equipment was functioning like a clockwork and therefore builders had done their duty, in line with their precious hydro-power dam achievements. To resume my account of the Agriș lock No. 1 control tower, I must mention that it lies between the kilometers 62,250 and 62,852. From up above, the twin locks look like two huge vessels. Albatrosses were flying close to where I was standing, as if trying to touch my forehead with their wings, shrieking and then diving suddenly into the water. In the horizon I could see a sea-going ship called Orion, sailing under Portuguese flag as she prepared to enter the Danube through the lock heading for the other ports and seaports along the river, deep into the heart of Europe. From a distance the ship looked very small. But as she approached the lock gates, facing the sea she gradually and somehow magically came into its own. It seemed to outweigh the overall dimensions of the filling and clearing segment. Inside the lock water was brought to the sea level. Before the ship could pass under the upstream railroad bridge near the sea, engineer Radu Savoianu who supervised the operation of passing through the locks through the Canal, asked whether the metallic antenna popping up from the mast was below 81 metres. A voice coming through the radio station assured him that it did not exceed 81 metres. And yet to him the antenna seemed to be higher than the bridge level, running the risk of crashing against the embank-

Photos: Two instances of the lock of Agriș and the lock control room.

ADRIAN DÖUITARD

EIGHT YEARS OF A RIVER'S LIFE

The Danube-Black Sea Canal was opened on May 26, 1986 at 8:47, in the presence of Nicolae Ceaușescu, the President of the Republic.

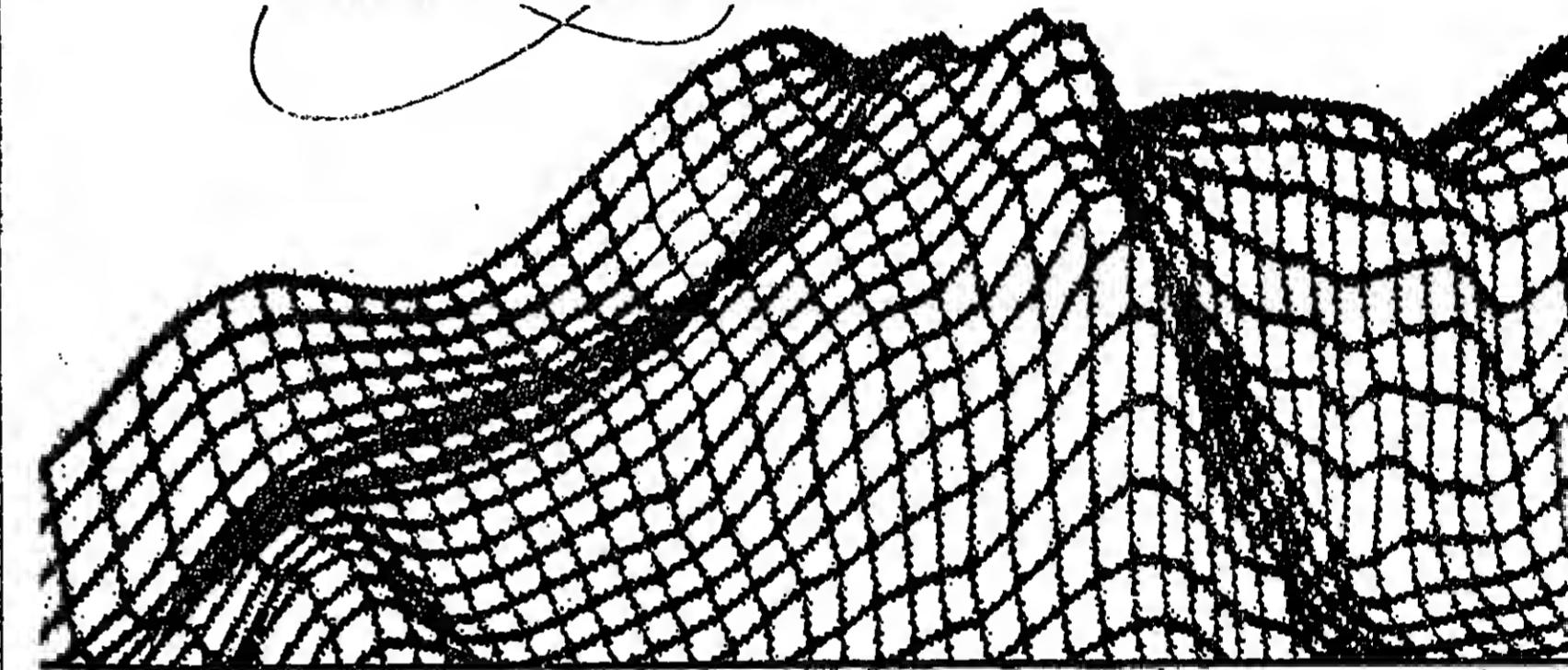
- The Canal was designed and executed by Romanian specialists and workers.
- Its execution lasted eight years.
- The file of the complex project comprises 10,000 separate projects and over 33,000 details of execution.
- 30,000 people worked here during periods of maximum concentration.
- Over 7,000 vehicles of various tonnages, 810 excavators, 480 bulldozers, 177 cranes, 70 tower building signs, 16 dredges, 117 conveyor-belt systems were used.
- Over three millions and a half cubic metres of concrete and reinforced concrete were poured.
- 3000 million cubic metres of earth and rock were excavated.
- The total length of the Canal is of 64.5 km.
- The Canal has three river ports, as well as a port and river port at Constanța.
- A traffic of almost 60 million tons can be annually passed through the two ports of Constanța and Adâncata.
- Trade of barges of up to 10,000 ton is also possible through the canal.
- The water level will cut the transport distances by about 1,500 km.



ROMANIAN NEWS

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UNANIMOUS APPRECIATION OF THE ROMANIAN OFFER

In 1985, Romania entered 37 international fairs. In many of them, the Romanian participants were awarded diplomas and medals for the products' quality and technically, for the attractive and modern way in which they were put on display. Of these, we should mention the diplomas obtained by the Masinsexport-Import and Industriexport-import foreign trade companies for their constant participation, over 25 years, in the Leipzig International Fair, the diplomas and medals won by Romanian exhibitors at the International fairs in Dubai, Cairo, Budapest, Moscow, Damascus, Beirut, Hanoi, Nairobi and Izmir. The gold medals awarded to Romanian products at the Havana and Plovdiv fairs. The diplomas secured by the Confex foreign trade company for its constant attendance of the autumn Leipzig International Fair over the last 15 years.

INTERNATIONAL ENGINEERING EXHIBITION

For several years now, the Romanian-Australian relations have seen an upward course. This year's Romanian-Australian summit meeting resulted, among other things, in an intensification of the bilateral commercial ties and an expansion of cooperation in areas of mutual interest, as for instance the extractive industry.

In this context, Romania ranked among the eleven official participants in the International Engineering Exhibition staged in Sydney, being represented by foreign trade companies exporting high-tech products, such as Maginsexport-

not only by the above-mentioned Gold Medal, and the favourable impression made by the Romanian pavilion, but also by the fact that during the event several valuable export contracts were concluded. Thus, in 1984 Universal Autotractor will deliver to Cuba, among others, Diesel engines, tippers, tractors and tankers. In its turn, Electronium will sell on the Cuban market radio sets and integrated circuits, as well as integrated circuits. Electromechanics will manufacture and supply the Romanian-made products, which they were put on view at the Havana International Fair.

In fact, all Romanian exhibitors in the machine engineering range won the public and experts' high appreciation. I should mention for instance the high interest elicited by the aircraft models put on view by the National Aeronautics Centre — from light and passenger aircraft to helicopters and gliders.

The high technicality of the electrical and electrical engineering products on the export list of Electronium and Electromechanics enterprises. The quality and diversity of the chemicals, medical drugs and cosmetics created according to original recipes and delivered abroad by Chimica and Dunabluu enterprises, just like the refinement and elegance of the knittings, footwear and leatherware displayed by Romtexco, and Arpimex enterprises met the visitors', technicians' and businessmen's appreciation, which enables us to assess that Romania's first por-



THE ZAGREB FAIR

The traditional commercial and cooperation relations between Romania and Yugoslavia, spurred by the frequent contacts between the leaders of the two parties and states and favoured by the geographical proximity of the two countries, by the numerous developments of their economic and cultural cooperation, are mutually rewarding and beneficial. In this context, exchanges of ideas and information are indispensable for the identification of new ways and means of expanding the bilateral trade, Romanian and Yugoslav firms regularly attend the exhibitions mounted in Bucharest and Zagreb.

In that respect, Nicolae Ceausescu and Josip Broz Tito decided that the members of the Joint Romanian-Yugoslav governmental commission of economic cooperation examine tangible modalities of more favourably basing economic cooperation, in the spirit of the orientation and understanding reached at top level.

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During these circumstances, the quality, technicality and reliability of Romanian products made them be remarked by Yugoslav specialists who visited the Romanian stand. Among the praised industries, there were food and non-food industries, as well as mechanical and electrical engineering.

Naturally, the technical interest in the Romanian exports also drew the attention of Yugoslav people, which was manifested in the conclusion of important export contracts.

Among them there are an

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THE STRATEGY OF ROMANIA'S ECONOMIC DEVELOPMENT

LOW-CONTENT MINERAL RESOURCES

A NEW OUTLOOK ON MINERAL RESOURCES • AN ORIENTATION IMPOSED BY THE REQUIREMENTS OF ROMANIA'S ECONOMIC DEVELOPMENT • AN EXAM PASSED SUCCESSFULLY BY SCIENTIFIC RESEARCH AND INDUSTRY • A LONG-TERM POLICY REFERRED TO THE OBJECTIVE SITUATION OF THE NATIONAL MINERAL PATRIMONY • A ROMANIAN SCHOOL IN THE FIELD OF TECHNOLOGIES TURNING TO ACCOUNT LOW-GRADE ORES • DEVELOPMENT MOSTLY BASED ON HOME-GROWN RESOURCES

In the heart of the Apuseni Mountains, two mountains which were apparently determined to defy eternity were chopped down. The peaks of Ciumâșu (1,205 m) and Rughiniș (1,256 m) were shortened by a few scores of meters. And their altitude keeps on decreasing. Several scores of million tons of rock shattered into pieces by dynamite filled the gorges of the surrounding valleys. The mountain rock is removed and underneath lies an enormous deposit of copper ore. A low-grade deposit which nevertheless will provide copper for many decades to come. But in order to bring that copper to light, over 100 million tons of gongosu is to be uncovered, transported and deposited. Is stochastic.

The over 4,000 people who took to building the Copper Mining Works of Roșia Poieni were faced with a hardly accessible place (over 100 km of road had to be laid out in order to ensure access ways) and with difficult weather conditions: long winters with heavy and frequent snowfalls, long, strong winds and torrential rains. Difficult questions had to be solved concerning the industrial construction and several technologies. Many machines and tools were tested and put to work here for the first time in Romania, as an outcome of the collaboration of many research institutes and machine engineering enterprises.

Now an immense amphitheatre opens between the Ciumâșu and Rughiniș Mountains: the Roșia Poieni Openpit. The mountains have been moulded in slaps and jarrings providing conditions of safety for the mining works.

The Roșia Poieni mining works delivers copper concentrates. The ore extracted from the openpit is processed by the preparation plant partially commissioned as early as 1984. This year, the neighbouring town of Zlătina saw the commissioning of a copper refining plant.

A NEW MAP OF MINERAL RESERVES

About 40 years ago economic geography guides and text-books represented Romania as a country possessing oligolectic resources of mineral substances. Was it an excessively optimistic outlook? Today we may incline to answer affirmatively, but then it was determined by the needs of the national economy of the 1950s.

The development and diversification of the Romanian economy over the last decades have rapidly changed the out-

look on mineral riches. Soon, the already known deposits proved insufficient: Romania had to resort to imports in order to meet at least part of its need of mineral and energy raw materials.

But that does not mean we should fall into the other extreme. Romania is definitely not poor in mineral resources!

After making a thorough investigation of the country's subsols, geologists consider that Romania is a country abund-

ing in low-grade ores. It has a multitude of low-grade reserves, yet of rather modest quality (this is the case of coal) or with scarce contents of metals. In fact this is the consequence of a prolonged exploitation (over 130 years in the case of oil) which has worn down deposits.

Even if their exploitation is carried out in more difficult geological and mining conditions, requiring bigger investments, it is far more advantageous than the import of such materials whose prices continue to climb.

The age of cheap industrial raw materials is over. Even where in the world high-grade mineral reserves (specialists call them "ideal") with a large

concentration of useful elements, located in accessible areas, which require quite small transport expenses, less manpower and ordinary equipment and preparation technologies are increasingly more exploited.

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CRITERIA OF EFFICIENCY

In order to justify the introduction of a low-grade ore in the economic circuit, in order to exploit it in conditions of economic efficiency, the total cost of extraction and preparation must not exceed the economic value of a ton of ore in a concentrate. The geological feasibility, the feasibility of the mining extraction and the technological feasibility have all to be ensured at the same time. Let us try to explain briefly what these criteria stand for.

The volume of geological reserves has to be large enough — several hundred million tons. Thus, the poor content is compensated by a large pro-

duction volume.

• The deposit should lie as close to the surface as possible in order to be exploited in large open-pit with large-capacity equipment. An open-pit exploitation provides lower production costs and a somewhat higher productivity than a pit.

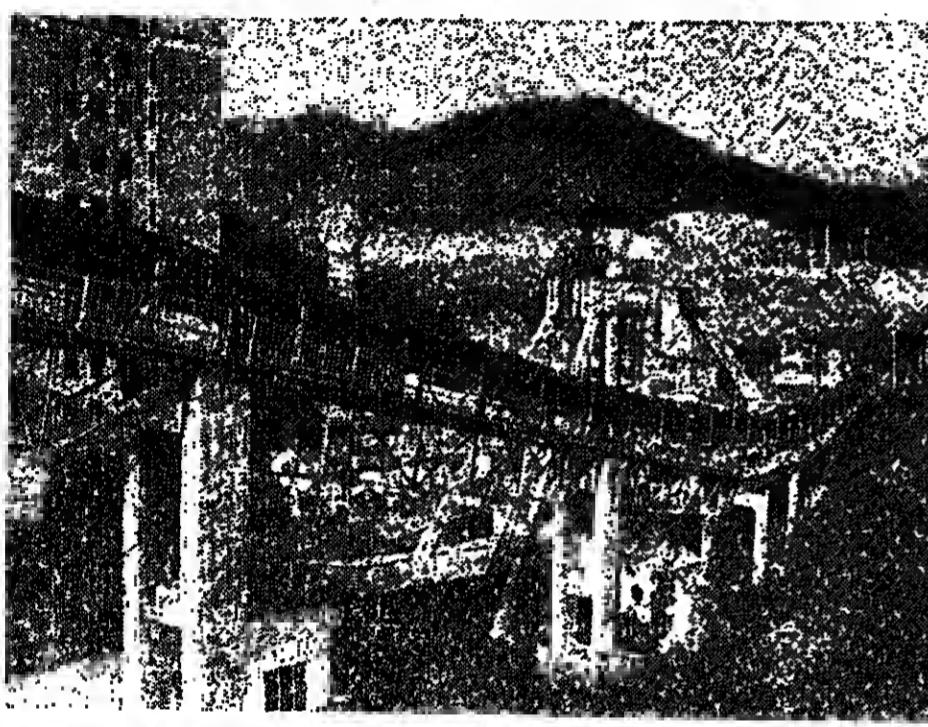
• Technological for the preparation and concentration of metalliferous minerals have to be devised in due time, allowing of the extraction of useful substances from the ore in the best conditions, as well as of their recovery with the highest possible efficiency. Account is taken not only of the extraction of a single element, but of

several or all useful elements contained in that deposit: both the main metals of the ore and several other, dispersed metals sometimes among them.

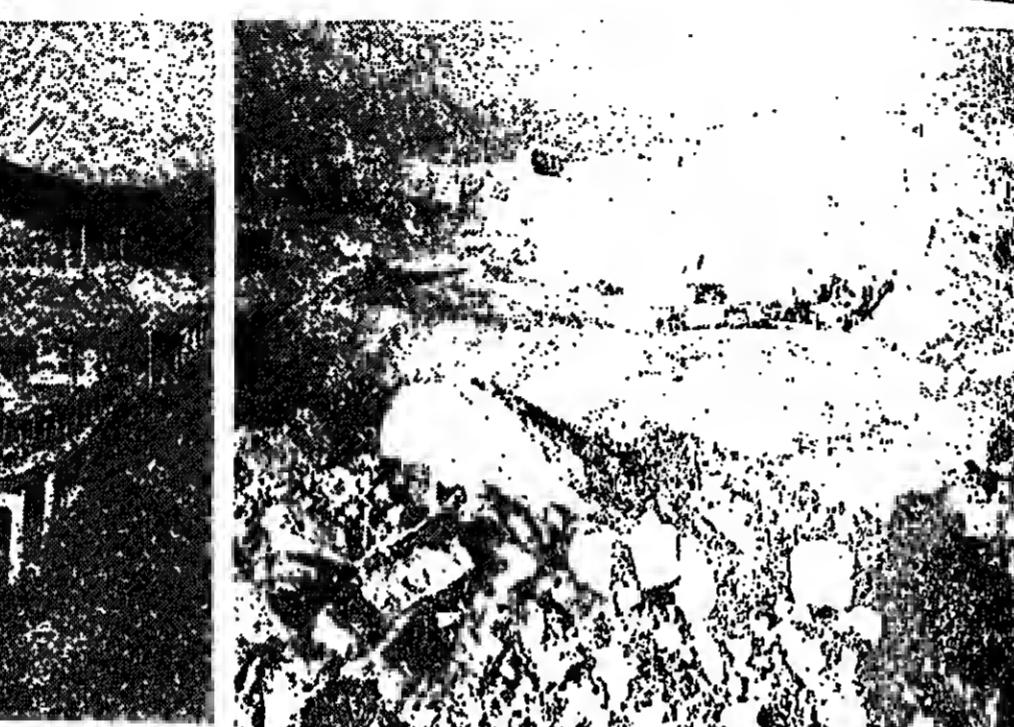
Technological researches undertaken in an integrated composition through a close collaboration of all compartments — geology, mining, preparation and metallurgy pave the way for the industrialization of ores.

The works which exploit large low-grade deposits have an annual output of millions of tons of ore and the preparation is carried out in large-capacity plants provided with technological lines of 6,000-7,000 t/day.

Considerable sums have been



Until not long ago, lignite layers under two metres thick would not be exploited. In keeping with designs worked out by the Mining Research and Design Institute in Craiova, the Mining Equipment Enterprise at Filipești de Pădure has built the first two mechanized plants for thin lignite layers (ranging between 1.4 and 2.8 m) in two constructive variants. In the CMA-PL variant, such a mechanized plant has been installed in the layer 6 Np of Learda mine of the Motru mining works, where it successfully replaces the CMA-3 mining machine. The other variant — CMA-2T — has yielded good results at the Zegulani mine in the Mehedinti coalfield, being perfectly adjusted to the specific conditions of ore deposits there. At present, CMA-2T is introduced at the Sinerig mining of the Anina Mining works.



carmarked in Romania for the discovery and geological analysis of low-grade deposits. According to a recently commandment of the national economy, specialists have found and keep on searching various solutions in order to turn area in better account. They create equipment and technologies able to counterbalance the effects of increasingly bad ore conditions. The requirements of the national economy have determined

the elaboration of an economic policy in the field of minerals, a long-term not concessionary policy addressing the objective situation of the national mineral riches. Through its decisions, it facilitates the utilization of low-grade ores in the economic circuit. With every passing year the native mineral substances augment their contribution to meeting the internal needs. Certain needs have already been met.

MIRCEA

In parallel with the expansion of the mechanized digging of mine galleries with the help of advancing combine machines, means of mechanizing the assembly of gallery supports — that is metallo-roofes and reinforced concrete prefabs — have been introduced at the Jiu Valley and Motru coalfields. The machines developed to this end have a lifting force of 500 and 1,000 t.

Recently, a garage dumping machine has been introduced as a national first at the Lipova branch of the Motru mining works. The machine, having a 270-m dumping arm, has already yielded good results. The dumping machine used in open pits so far had a lifting arm long enough

to 7 km, the distance on which the roofer from the uncovering of the gallery is transported. This accounts for the non-reduction of transporting and labour expenses.

For a few months now, at the Jiu Valley of the Motru Mining Enterprise, the Lipova Mining Enterprise, the Lipova branch of the Motru mining works, the supporting operations of the working face separation galleries have been mechanized. The equipment of the working face of fastening the roof has been mechanized, cutting machines prevent

GIGANTIC EXCAVATOR

• At the Hunedoara open-pit in the Mehedinti coalfield a new gigantic excavator belonging to the family of bucket-wheel excavators built by the Romanian industry open-pit miners has started being tested. It is the fourth machine of the kind equipping the Mehedinti coalfield — the youngest in this country. A few years ago, the first Romanian excavator of the kind — EHC 1400 — was put in service here.

The Mehedinti coalfield has been a iron testing-ground for this co-extracting plant. And, through their suggestion, the engineers, engineers and foremen who set these giant mining and processing units of this modern Romanian mining machine, the newcomer in the Hunedoara excavator family has included all these suggestions in its construction.

HOLIDAYS IN A WINTER SCENERY

Over December 28, 1988 — January 3, "Winter Tree" celebrations will be organized in kindergartens, schools, enterprises, institutions, forming units, cooperative forms, children's homes, children health-care units, as well as in "Song to Romania" culture and creation centres. For this traditional celebration, on President Nicolae Ceaușescu's proposal adopted by the Executive Political Committee on December 9, the mass and public organizations have earmarked substantial funds. To the same end, the local women's organization and the UCECOM units have created clothing items and various other objects.

The funds collected from the mass and public organizations' own incomes amount to 265,000,000 lei, by over two million more than last year.

The local women's organizations and the UCECOM units have achieved through voluntary work gifts worth 6,320,000 lei.

The funds collected and the gifts will benefit some 4,000,000 children.

On the traditional "Winter Tree" celebration, special cultural-artististic programmes will be staged.

In Bucharest and in county seats "Children's Townlets" will be set up. Carnivals will also be organized.

The county youth and children organizations, together with school representatives, will provide, on a local plane, for the usual and pleasant spending of the pupils' and students' winter holidays. With the support of people's cultural, rest and training camps, half-day clubs and trips will be organized and sports contests will be held as part of the winter stage of the Dacia sports competition.

In the period preceding the "Winter Tree" celebration, exhibitions will be mounted displaying the most valuable works achieved by children — drawings, paintings, sculptures, black-and-white —, and contests of songs and poems, portraiture and various other cultural-educational activities will be organized.

The measures and activities related to the "Winter Tree" celebration once again reflect the concern with raising and educating the country's youngest generations, with providing all Romania's children with even better living and learning conditions.

LAST MINUTE NEWS

We have learned from organizers that in Iași, Moreni, Piatra Neamț and Clujul Mădovenesc resort, skiing lessons will be offered over December 17, 1988—February 28, 1989 by instructors certified by the Romanian Skiing and Skating Federation. Both young people from Romania and those coming from abroad can enroll in these courses which last seven days each. Each course of lessons ends with a competition. The top three players will be awarded prizes. The others will be happy that they can ski and receive the D22 badge.

National skating rinks will be created during the winter holidays, weather permitting (so far, the signs are encouraging).

A special camp will simultaneously be staged at the Clujul Mădovenesc complex, which will schedule competitions in the main season sports: alpine skiing, cross-country skiing, biathlon.

Each resort will feature its own special artistic and dioramic programmes, and the traditional youth's New Year's Eve parties.



A NOVELTY FOR HIGH SCHOOLERS

A holiday camp for high school pupils is due to be organized at Căpâlna, Bihor county this year, we were informed by Gabriela Pohoria, from the tourism department of the Central Committee of the Union of Communist Youth.

The new camp, endowed with the adequate equipment for a winter spa, will be able to host two batches of 400 pupils each. The campers were recruited from all over the country on the basis of their results in school contests by subjects and in the pupils' versions of scientific papers.

They are expected to hold heated debates on controversial scientific themes for which they have already shown real aptitudes.

Similar camps will be organized in parallel in the other counties, too.

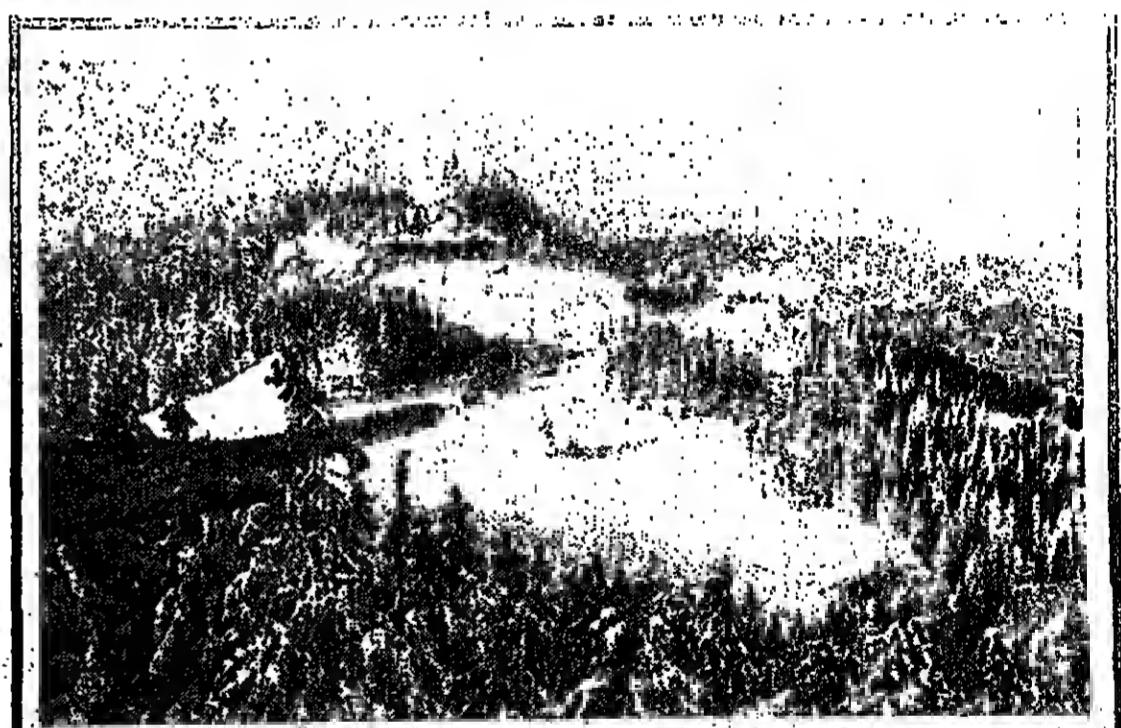
Moreover, holiday clubs will be opened in high schools and cultural establishments.

of children interested in this field.

A sports camp "Olympic Hopitaly", will exist in the same camp with an eye to the future competition in Bihor.

A gala of winter traditions and customs is due to be staged at Valea Aspră during this period.

More than 1,200 children will take part in these national activities.



LAST MINUTE NEWS

The children's holiday camps in all Romanian mountain resorts will accommodate some 50,000 schoolchildren under 14.

During the winter holidays, camps by various subjects of study will be organized. Apart from specific winter recreational activities like children in these camps — who are the best at the respective subjects — will be given additional training with a view to their participation in the higher phases of the national competitions in cross-country skiing, biathlon, alpine skiing, etc.

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Two hundred thousand children will go on trips to the Carpathian Valley and other mountain regions.

Holiday clubs will be open in all general schools. Their programmes, drawn up according to the children's preferences, expressed in surveys, contain many attractions: fun, health, health education, culture, sports, entertainment, etc.

At the holiday camp organized at the Palace of Children and Youngsters, Piatra Neamț, children will stay for over 100 days.

CONSTITUTION



CHIMICA IN THE WORLD

ICE Chimico's export list covers over 170 groups of products.

This wide range of chemical products are marketed through economic relations with more than 100 commercial firms in 71 countries.

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fertilizer, complex fertilizer (nitrogenous, phosphatic, potassic), writing, printing and newsprint paper, wrapping paper, various paper and cardboard items, original and traditional drugs, cosmetics, varnishes and dyes, dyestuffs and other products.

ICE Chimico is a partner of three joint trade companies: AMROCHEM - USA, ROMITAL - Italy, CONTICHEMIE - West Germany, which also contribute to the marketing of the enterprise's products.

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ELECTRONUM YOUR SAFEST BUSINESS PARTNER

Marketing Romanian electronic products and services as well as economic cooperation in the field of the electronic industry are carried out by the ELECTRONUM foreign trade enterprise.

ICE ELECTRONUM'S export programme includes the following lines of products :

— Telecommunication apparatuses and equipment, servicing included, starting from design up to training and maintenance. From this line of products mention should be made of : telephones, urban, interurban, international and institutional automated telephone exchanges. Exports of such products to Greece, the USSR, Czechoslovakia and the GDR have become a traditional practice.

— Measuring and control apparatuses, of which ampermetres, voltmeters, wattmetres, electric metres, flow-metres, steam-flow metres, logometres are delivered to Poland, Syria, Iraq, Pakistan, Sudan, the GDR and Czechoslovakia.

— Automation elements, equipment and installations for all the economic and social sectors.

We shall enumerate some subgroups of products : field and panel automation equipment, distribution and control electrical equipment, automated equipment and systems controlling technological processes in all economic branches, transmission and data processing equipment.

ELECTRONUM
BUCHAREST - ROMANIA

ment, teletransmission and data processing equipment, machine tools, control equipment, automated testing equipment.

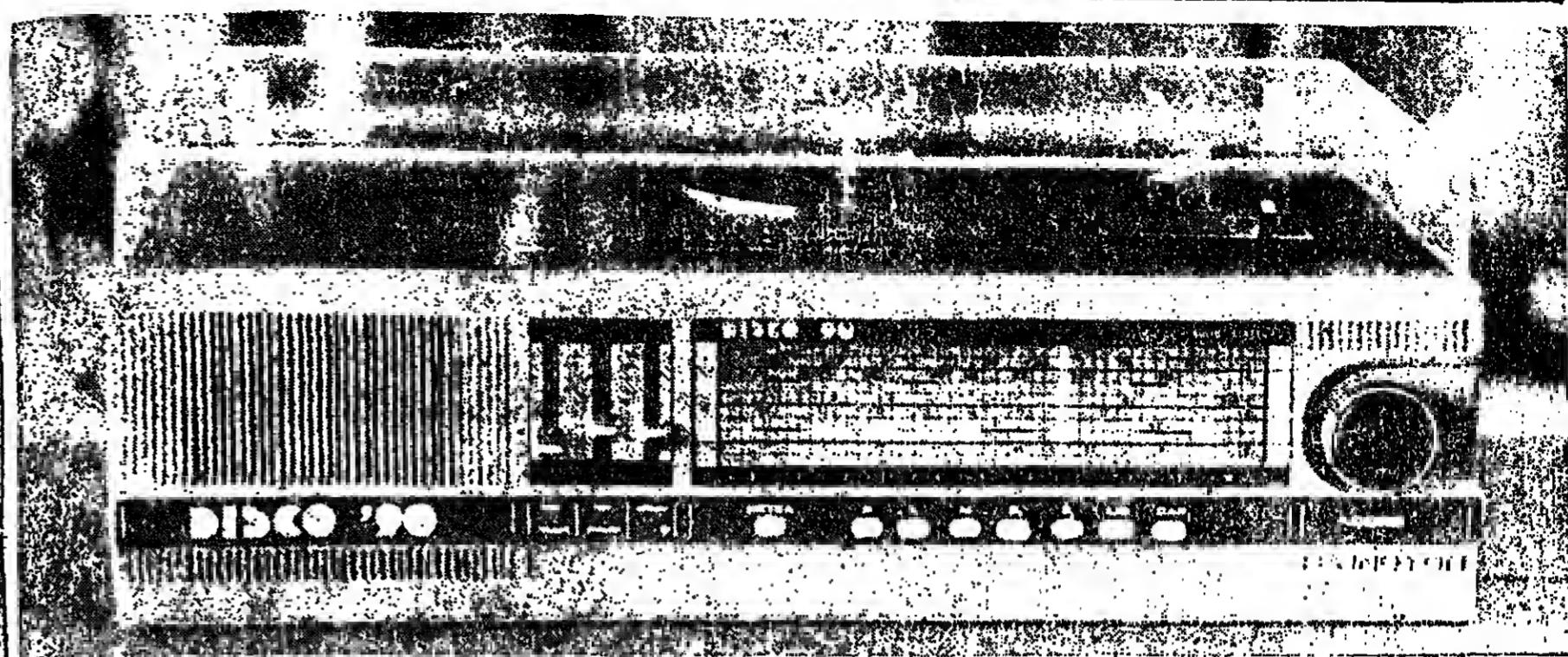
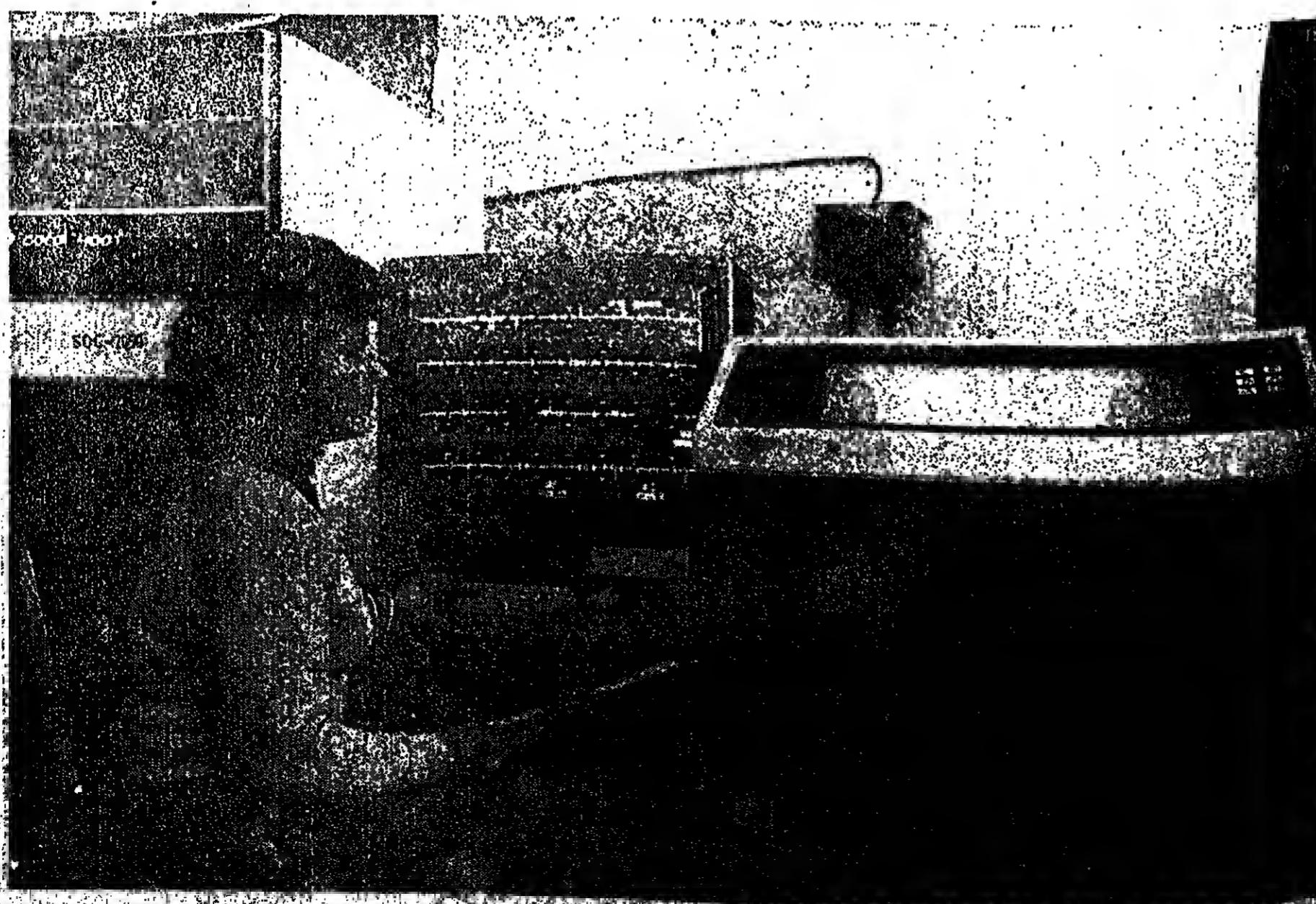
Also on offer are personal installations and equipment as well as turn-key deliveries. Increasing are the deliveries to countries such as the USSR, Egypt, the GDR, Czechoslovakia, Iran, Iraq, Bulgaria.

— Computer technology equipment such as medium-capacity computers, minicomputers, microcomputers, personal computers, graphical systems, invoicing and bookkeeping machines, peripheral equipment. These products are exported to People's China, Czechoslovakia, the USSR, the GDR, Switzerland, Austria, West Germany, the USA.

The electronic components cover a wide range of diodes, transistors, integrated circuits, resistors, condensers, etc and are exported to Bulgaria, Czechoslovakia, the GDR, Poland, France, Italy, the United States etc.

Consumer goods such as radio receivers, radio cassette recorders and tv sets. These products are exported to countries such as West Germany, Britain, the Netherlands, Czechoslovakia, the GDR, the United States.

Also taking place through ICE ELECTRONUM are the export of licences and knowhow, the granting of technical assistance and software.



ICE ELECTRONUM imports a series of equipment, apparatuses, electronic components and various materials for the electronic industry and audio-video consumer goods.

An important partner in the export and import conducted by ICE ELECTRONUM is the Soviet Union.

ICE ELECTRONUM - Bucharest collaborates with the Soviet enterprises V/O ELECTRORGETECHNICA, V/O STANKOIMPORT, V/O MASHPRIBORINTORG, V/O TECHMASHEXPORT, V/O ENERGOMASHEXPORT, V/O TEHNOINTORG, V/O

Supplied to the USSR are adjustable drives for machine tools, automatic telephone exchanges, computer technology, while that country exports to Romania electronic components, technological equipment.

service of all delivery dates, especially as concerns the electronic components which are vital to the rhythmic realization of the equipment production plan.

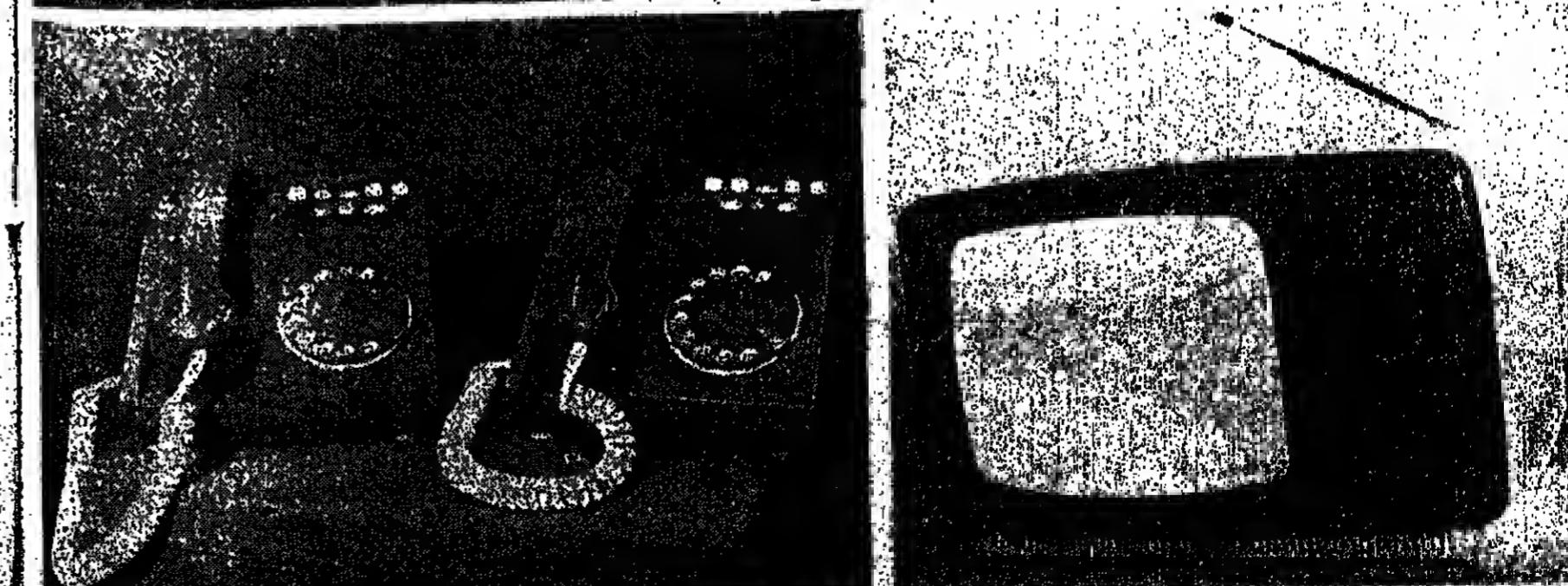
The collaboration with the Soviet foreign trade enterprises also accounts for the cooperation in production, that is Soviet electronic components are used in manufacturing electrical drives, computer technology equipment and automated telephone exchanges to be delivered to the USSR. At the same time very important is the ob-

servance of all delivery dates, especially as concerns the electronic components which are vital to the rhythmic realization of the equipment production plan.

According to annual mutual exchange protocol stipulations, the volume of the exchanges between ELECTRONUM and the Soviet foreign trade enterprises is set to grow every year.

For further information please contact our specialists.

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"SONG TO ROMANIA"

The seventh Song to Romanian National Festival mass-singing stage is drawing to an exciting conclusion. Since October 1987, the mass stage has offered a stimulating framework for the assertion of every individual's right for the promotion of original literary and artistic creation, of scientific research, reflecting a permanent development and diversification of the content and forms of the political-cultural, scientific-technical and cultural-scientific work in village and town. As part of the mass stage, all counties, county units and cultural establishments have organized debates, exchanges of experience, exhibitions, symposiums, meetings with specialists in production, literary criticism and organization of initiatives, on scientific, literary, technical, cultural and artistic creation.

During the first stage of the ongoing edition the number of artistic ensembles has risen substantially, bringing a telling proof of the climate of creative emulation generated by the festival. Presently, over 23,000 artistic formations and workshops are taking part in the festival, engaging over five million participants. (Photo right)

CHALET FOR TRIPPERS

Situated at an altitude of approximately 1,500 m, the Polana Izvorilor chalet of the Bucegi Massif is a well-deserved stop-over for any tourist after two hours' climbing on mountain paths. Moreover, it can accommodate travellers for a longer period. A delightful, pleasant night providing also a silent cure of quiet and invigorated air. (Photo right)

CLUJ-NAPOCA PREMIERES

The National Theatre of Cluj-Napoca played host to the premiere of Shakespeare's "Anthony and Cleopatra". A dense and lively show, marked by the virtuosity of the stage director, actors and scene painter. Béla director Mihai Măruță's sense of gradation and stage expression of opposing tensions has imposed a

lively, exciting rhythm, full of suspense. Achile Antal (playing Anthony) and Gheorghe Pașca (Cleopatra), the latter coming from the Lugh, Stirzine, Bohemia Theatre to Bucharest, were applauded by the local press as the ideal couple for the play. The show had the unique chance of bringing together some notable Milan

Mărescu, costume designer Nadina Săraru and composer Ioan Dărău who created a suggestive and five-haracteristic, with highly effective odd sounds.

As if to confirm, the rich and long-standing tradition of the Romanian Opera of Cluj-Napoca mounted a highly successful show directed by Gheorghe Zoborescu, under the baton of Gheorghe Vlăduță, with the contribution of choreographer Victor Vlăduță, scene painter Gheorghe Codres, of one of the most famous musicians, Frederik Loewe's "My Fair Lady".

The charm of Janos and always fresh musical creations have recently been confirmed by the Operetta Theatre of Bucharest which has recently staged its 500th performance.

Standing out among the cutting equipment manufactured by the Suceava enterprise of machine tools is a

processing lathe. With a maximum 15-ton

heavy charge between points, a maximum

turning diameter of 900 mm and a length

between points of 5,000 mm, the 1400

is controlled and guided by the control panel attached to it. (Photo below)

Impresses through both its capacity of

processing highly alloyed steels and its

size — 16,130 mm in length, 2,230 mm

in height and 3,120 mm in width. A giant

whose performances are nevertheless

controlled and guided by the control

panel attached to it. (Photo below)

SPORTS

Romania's men's handball champion Steaua București beat Denmark's champion team I.F. Kolding

23-21 at home and 23-21 away and went through to

the quarterfinals of the European Champions' Cup. In

the women's competition, Mercur Tîrgu Mureș won

28-15 the away match against Turkish team Arçelik, Istanbul, after having outclassed them at

home 37-8.

In the Cup Winners' Cup, the men's team Dinamo

Bucharest lost the second leg (away) of their tie

against TSKA Mönchengladbach 21-32 but had defeated the

Soviet champions at home 22-17 and thus strode

into the quarterfinals. In the women's competition, Silișia Bacău (rouned Turkish team Belediye Izmir,

in both legs — 33-17 at home and 33-18 away,

following their two-leg win (30-17 away and 21-15 at

home) over the team St. Galen, Switzerland. Timișoara went through in the EHF Cup. Minusul Baia Mare went out of that competition by

hand of Iceland.

SPRING

IN DECEMBER

Some five million nur-

series transplants of tan-

gera and citrus prepared

in the hothouse of the

Vegetable Growing Re-

search and Product De-

velopmental Institute

in the village of Vida-

cești, Bihor, Romania.

These transplants, that

will yield fruit in deep

the autumn, in the

depth of winter. In Ro-

mania, the largest low-

temperature hothouse enter-

prise.

Some 500 million

seedlings and 100,000

plants are being pre-

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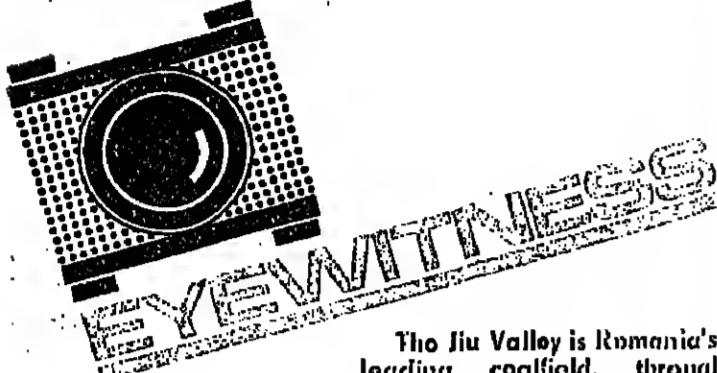
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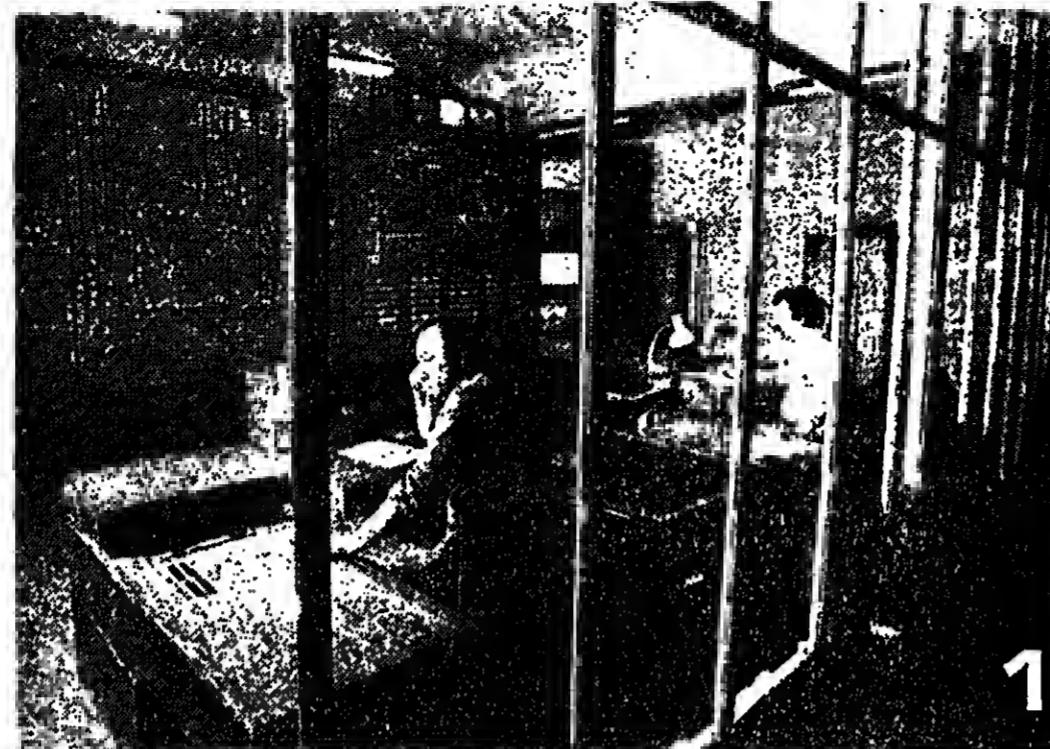
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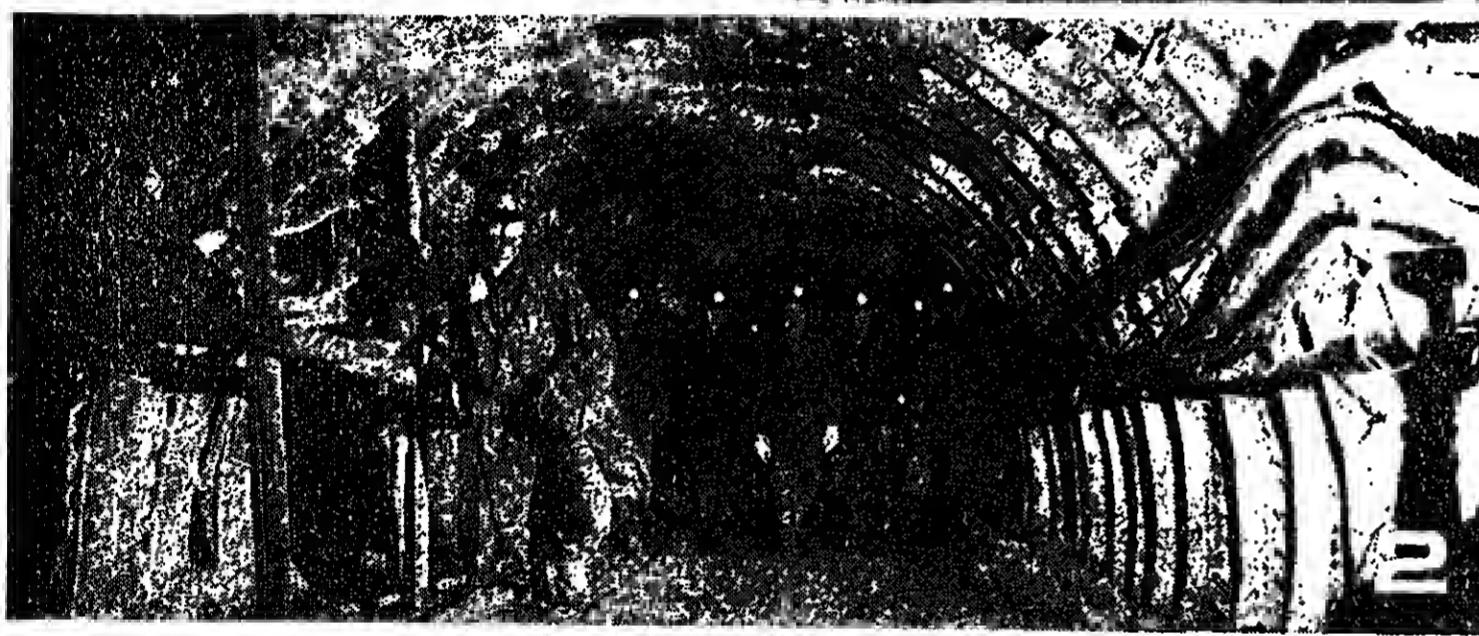
pared in the hothouse of



The Jiu Valley is Romania's leading coalfield, through both its size and the quality of the coal extracted from there: pit coal — the raw material for metallurgical coke and fuel coal of up to 4,500-5,000 calories for thermal power stations. In the underground galleries of the 13 productive enterprises of the mining works operations are conducted with modern mechanized machines.

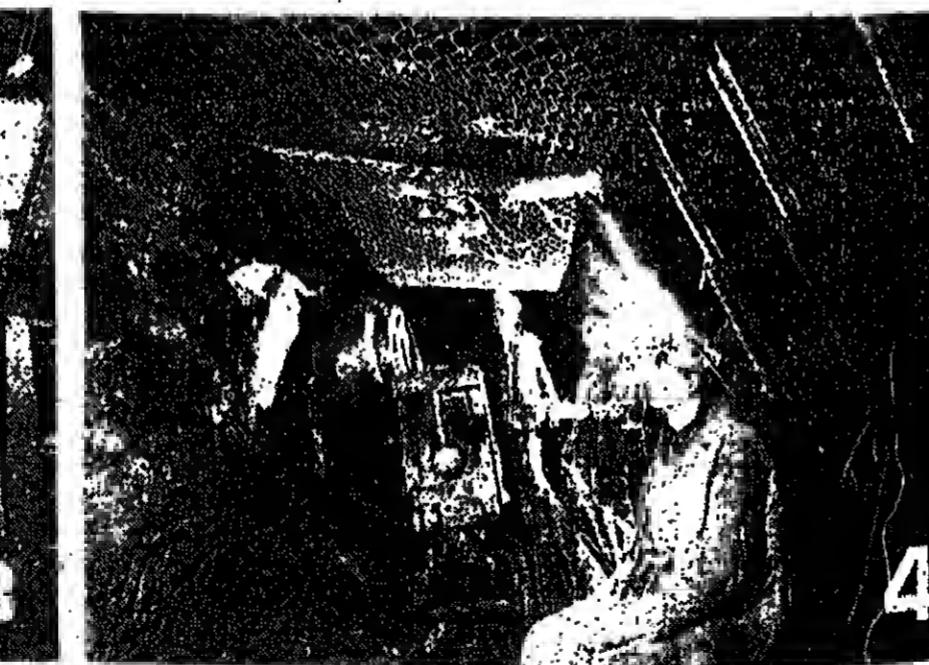
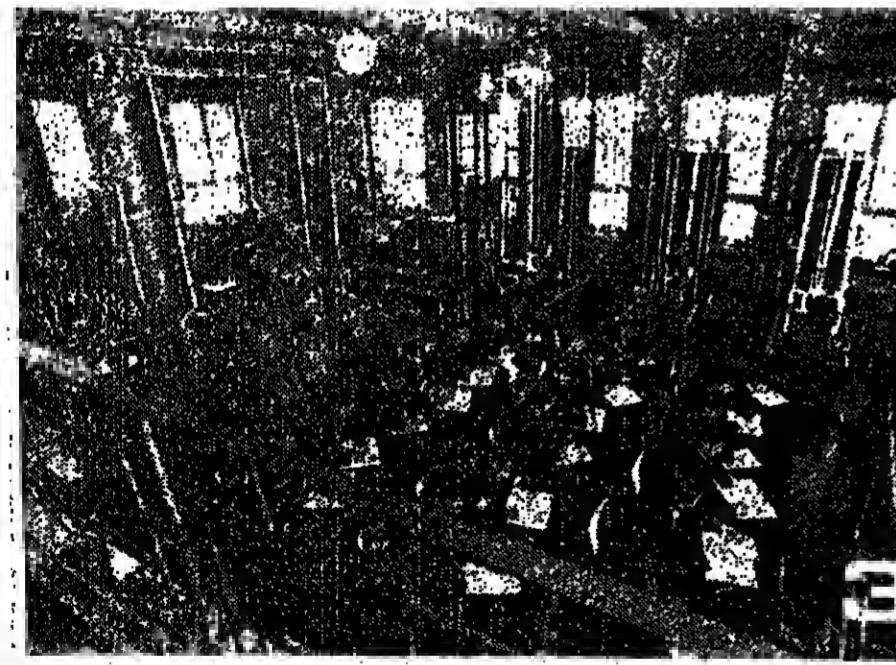


1



1 View from the control room of the Lupeni Mining Enterprise. The personnel on duty monitor on tv screens and on the flashing map of the galleries and mine galleries the production flows, the running of conveyor belts, the airing installation, keeping permanently in touch with the men underground.

2 At Lupeni, one more day of fruitful work has been completed. The miners conclude their shift with the feeling of fulfilled duty: they have dug several thousands more tons of coal.



3

4

3 View from one of the lecture rooms of the Mining Institute in Petroșani. Here, highly skilled experts are being trained for the mines in the Jiu Valley and the other coalfields in the country.

4 Mechanised mining in a large working face at Lupeni, where the Mining Enterprise, the biggest supplier of coking coal in the country, boasts a high mechanization degree.

5 A forest of underground hydraulic pit-

A GENETICIST IS LOOKING AT THE WORLD

An enthusiastic decipherer of the human biological destiny, my collector seems to ignore — or maybe he just does not care — that his name is a notorious one. And yet it is precisely the humanist side of his researches that earned his fame: the works of medical human genetics and cytogenetics, the first in this country, which he has published since 1967 and, even earlier than that — the volume *Introduction to Anthropology* (in collaboration) — the first work of the kind in the specialized Romanian literature, or the *Paleoanthropology Monograph* — *Sărată Monteiro*, which has earned him the Prize of the Academy of the Socialist Republic of Romania. The author of over twenty scientific books, he is well known by the Romanian public thanks to the scores of tv or radio broadcasts whose guest he was.

PEOPLES & IDEAS

way, al ibi. Nobody imagined that Huxley's *Utopia* would one day become a reality. The late '60s saw the publication of T. Taylor's *Biological Thanatobio*. Genetics thus became a bomb about to explode. *Genetic engineering* was drawing near.

"During this period you published *"The Adventures of Genetics"*. At that time it was

still the impossible. "Yes, those were hot years, seething with speculations and uncertainties. Yet no human invention of advances which were to transform the planet was heralded. Ever more scientists left their labs to look at the future. The ensuing impact was tremendous. Then a few biological breakthroughs, executives the most sensational and epochal in the USA and Europe convinced the Romanian scientist that people on all continents are worried by the same questions about themselves. It was from this responsible involvement that his book of essays *Utopia's Utopia* (a *Utopia* is Looking at the World) was born. The title, which suggests the author's protection of faith, guided the entire literary and ideological work of Constantin Brâncuș.

"Should you resort to a comparison, to what would you compare the advent of genetics in science?"

"With the discovery of fire! Genetics is fantastic because it too participates in transforming the world. And in an esen-

cially justified?"

"With the discovery of fire!

Genetics is fantastic because it too participates in transforming the world. And in an esen-

cially justified?"

"Your feeling is quite right.

As for *in vitro* fertilization —

should we refer to this alone?

It does not yet seem to be quite

on everyday fully received by all. Conventional wisdom warns us not to play with fire. The

bomb mentioned in the title of Taylor's book suggests certain

fear-provoking possibilities. Is

the fear justified?"

"The bronchial cancer of penicillin engineers proved to be beneficial to man, medical treatment in the very beginning, the could never be predicted then. Through the geneticist's creative power, the bacteria have started producing insulin, which is so necessary (for the time being) to diabetics. Hera is another example: until not long ago, hypophyseal dwarfism could be treated with human growth hormone, quite difficult to extract. Gonotropin, on the other hand, has stopped in synthesis. The growth hormone which, beyond its immediate utility, allowed the immediate reparation of the growth plate, could be obtained through implantation of growth hormone genes, some parents ask doctors to make their children superathletes or

superbasketball players over two metres tall. According to the article, certain biotechnological firms have agreed to

the development of all these new technologies.

"We no longer radiotherapy, transformation to the play of life, and of natural selection. Certainly, lonely man can improve man. By replacing the genes — which in the last analysis are just pollutants —, one of the paths leading to the perfection of the human being is to correct the genes, the carriers of hereditary diseases. Falling in this line is the development of definitive therapies. For the time being however, I think that one of the most fabulous hopes of medicine is the synthesis of specific antibodies ('biologics') for maintaining the body's integrity. As it has been before, genetics engineering will again only the impossible."

"All humans without exception

would like to be perfectly healthy, living a long life.

I have recently read in a special issue of *Le Quotidien*

an article setting forth

some suggestions for the next

failure of genetic engineering:

endowing man with two

mothers, two hearts, wings for

those destined to fly, an additional pair of eyes at the back, the proposal is to in-

clude the genes of alien species in order to render people more

conservative and thus eliminate

social tension —, or genes of

intelligence in human embryos

in test tubes, with a view to

obtaining supergenetics. After

the model of the giant mice ob-

tained through implantation of

growth hormone genes, some

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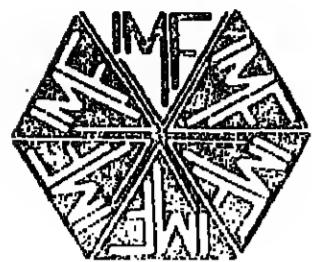
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"As we all know, it once acci-

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THE FINE MECHANICS ENTERPRISE



YOU CANNOT PRODUCE WELL UNLESS YOU CONTROL!

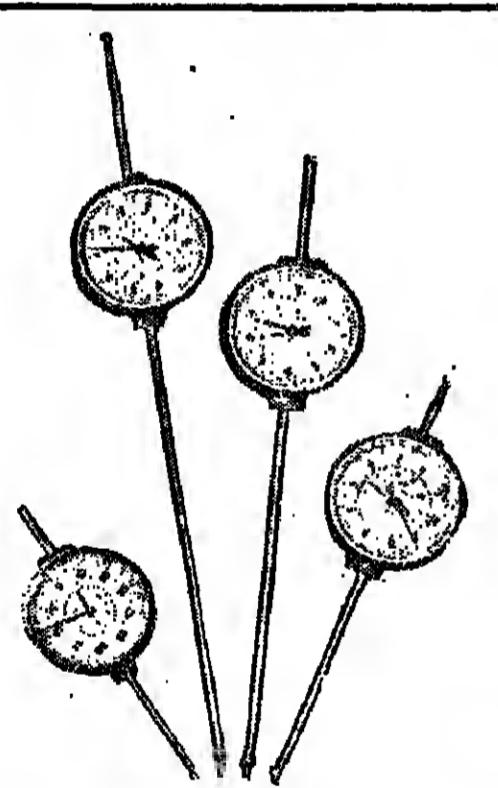
If, generally speaking, "man is the measure of all things" as Protagoras put it, we must stress that the quality of your products and the productivity of your labour are strictly conditioned by the use of MEASURING AND CONTROL APPARATUS.

The post- or in-process sizing of your products supplies you the information through which you can become EFFICIENT as a producer.

It is this efficiency (viz. quality, producti-

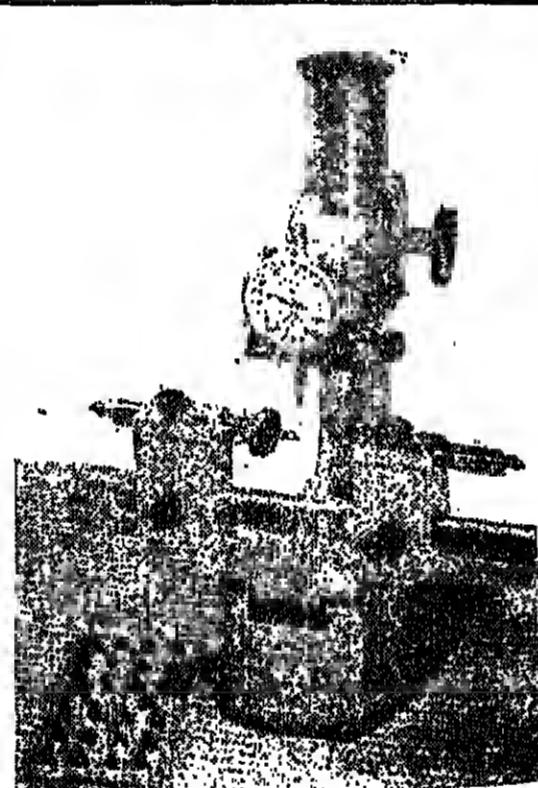
vity, competitiveness) that the Fine Mechanics Enterprise (IMF) of Bucharest has in mind when offering its beneficiaries :

- measuring and control apparatus for lengths, pressures, temperatures, discharges, times and speeds ;
- special tools (diamond and sinter-carbide metal tools), holders, high-accuracy and fineness devices and dies, having a high degree of productivity and durability.



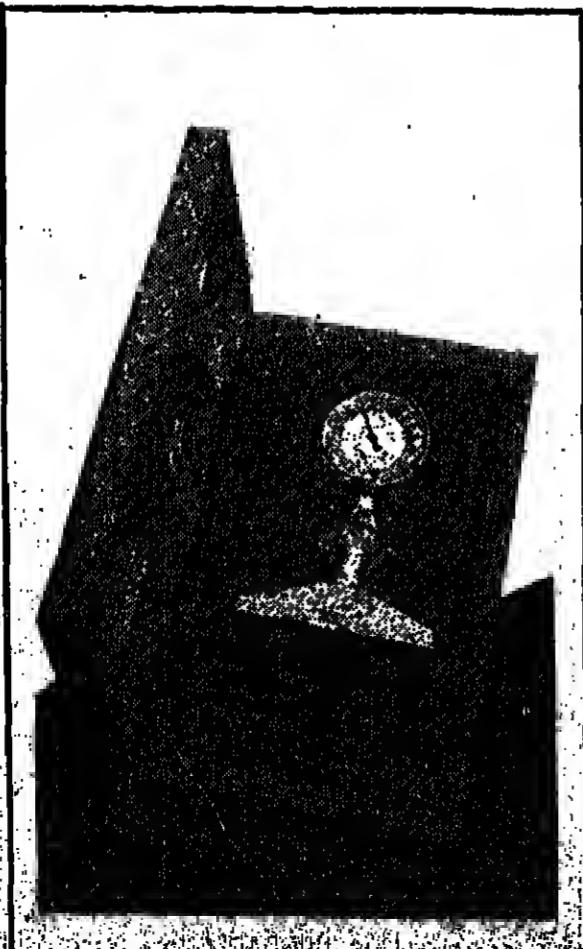
MEASURING AND DIMENSIONAL CONTROL APPARATUS AND INSTRUMENTS

- dial gauges • bore dial gauges • gear measuring instruments ; • threaded canic gauges for the oil industry.
- circular dial snap gauges • gear pitch-error and gear-tooth-thickness measuring instruments • reading ball-gauges ; optical read-out devices and rules.



IN- AND POST-PROCESS SIZING GAUGES

- They are built according to modern principles, with pneumatic inductive, piezoelectric transducers, whose signals are processed and displayed analogically or numerically in modular-type electronic units :
- pneumatic post-process sizing gauge — SUPERJET • pneumatic post-process sizing gauge — ELSUPERJET
- post-process sizing gauge with electric contacts • inductive electronic post-process sizing gauge • roughness measuring post-process sizing gauge ; smoothness measuring gauge (electronic levels),
- in-process sizing gauge for continuous exterior cylinder surfaces with one and two measuring points • for continuous exterior surfaces and for continuous interior cylinder surfaces with two measuring points • in-process sizing gauge for centreless grinding machines • in-process sizing gauge for exterior diameters of narrow surfaces • copying systems mounted on machine tools for processing through copying after a pattern.



AUTOMATION ELEMENTS AND MECHANISMS

- Programmers • electromechanical impulse counters • programme control for automatic weaving machines • discharge counters with oval wheels • electromechanical tachographs for motor vehicles • complex speed measuring installations for locomotives and subways.

FOR PRESSURE INDUSTRIAL CLOCK-TYPE APPARATUS, INSTALLATIONS AND TEMPERATURE CONTROL

This apparatus family includes pressure switches and thermostats. They are indispensable in the automation of starting and stopping installations using fluids whose temperature and pressure must be maintained within certain preadjusted limits. Pressure switches and thermostats are made in the Fine Mechanics Enterprise in Bucharest entirely according to the requirements and specifications of motors they are mounted on and the conditions of the environment.

REMEMBER THE IMF TRADEMARK



SINTER-CARBIDE METAL PRODUCTS

The main groups of products bearing the "CARME-SIN" mark — which are the object of the Bucharest Fine Mechanics Enterprise's production programme — are the following : sinter-carbide metal brazing tips and inserts for metal cutting ; sinter-carbide metal inserts for mining tools ; sinter-carbide metal inserts specific to the wood industry, building materials and extraction industry ; products for drilling installations ; dies for screws and nuts ; dies for roll bearings ; other types of products upon the foreign partners' demand.

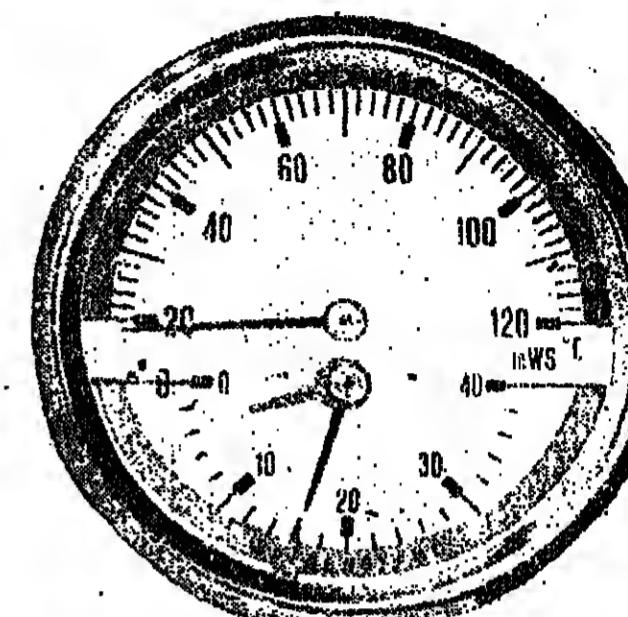
According to the concrete destination indicated by the end user, these products are executed out of the PKMG groups of carbide metal powder, after ISO international standards or according to other requirements specified in the order.

In order to increase the durability and performances of the sinter-carbide metal inserts, the method is applied of coating them with extra-hard layers of titanium carbide, giving the inserts an increased durability of up to 300 percent, as compared to the normal execution.



PRESSURE GAUGES

Through the great diversity resulting from constructive variants based on measuring limits, accuracy, diameter, connection and scale type, the Fine Mechanics Enterprise can satisfy the most exigent demands of its clients (standard pressure gauges or of special construction, upon demand). There are : • general use industrial manometers • vibration-proof manometers • corrosion-proof manometers • capsule-manometers • double indication manometers • manometers-thermometers.



DIAMOND TOOLS

The processing of ferrous and non-ferrous metals, of sinter-carbide metal, stone, concrete, ceramic and glass — through modern methods — calls for the use of diamond tools on an ever larger scale.

The manufacturing programme of this kind of tools is achieved at IMF on the basis of the licence purchased from WINTER firm of West Germany and is currently in full swing as a result of the growing demand. It comprises the following more important groups :

- diamond mills with metallic or resinous binder of various shapes and sizes, with cubic boron nitride.
- diamond tools for construction-material processing
- diamond tools with galvanic binder
- honing diamond blades
- diamond pastes
- diamond tools for trimming and shaping abrasive stones
- chambering tools with extra-hard materials from diamond polycrystals or cubic boron nitride
- diamond drawing dies.

AND THE EXACT TIME

WHICH YOU CAN LEARN AT ANY MOMENT BY LOOKING AT THE DIAL OF THE WATCH WHOSE TRADEMARK OREX IS A GUARANTEE OF ACCURACY. BUILT IN SEVERAL HUNDRED MODELS BY IMF, THE WATCHES — MECHANIC OR QUARTZ-BASED ANALOG — MEET THE FINENESS OF YOUR AESTHETIC

TASTE AND GIVE YOU THE EXACT TIME.

MANUFACTURER: THE FINE MECHANICS ENTERPRISE



ROMANIA • BUCHAREST • 9-19 POPA LAZAR ST.
PHONE 350000 / 290 • TELEX 11583

EXPORTER:



Electroexport-import
ROMANIA • BUCHAREST 216 VICTORIEI AVE.
PHONE: 502870 • TELEX: 11388